

PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE INSTALLATION OF A NEW TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 99 AND WOODFORD DRIVE IN HOWARD COUNTY. MD 99 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA FOUR-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH AN EXCLUSIVE-PERMISSIVE LAG LEFT TURN PHASE FOR WESTBOUND MD 99. VIDEO DETECTION WILL BE USED.

CONTROLLER REQUIREMENTS

INSTALL A FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER WITH ONE (1), FOUR-CHANNEL, TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIER AND VIDEO DETECTION INTERFACE EQUIPMENT HOUSED IN A NEMA "6" BASE MOUNTED CABINET.

SPECIAL NOTE

UPON COMPLETION OF THIS PROJECT, THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF THE MDSHA AT (410) 787-7635 TO ARRANGE FOR THE PHONE LINE INSTALLATION. THE CONTRACTOR MUST PROVIDE MR. SNYDER WITH THE NEAREST ADDRESS, ZIP CODE, AND PHONE NUMBER.

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE FURNISHED BY THE SHA AND INSTALLED BY THE CONTRACTOR

CATEGORY CODE NO.	QUANTITY	DESCRIPTION
971017	1 EA	BASE MOUNTED CABINET AND CONTROLLER
973023	2 1 105	SHEET ALUMINUM SIGNS TO CONSIST OF THE FOLLOWING: 1 1 X EA - D3-1 DUAL FACED SIGN (VAR X16") - MAST ARM MOUNT 1 1 EA - M85-1B3-2 SIGN (76" X 48") - MAST ARM MOUNT 2 EA - W3-3 SIGN (48" X 48") WITH "NEW" PANEL (30" X 30") GROUND MOUNT 2 1 X EA - D-3(3) SIGN (36" X30") - GROUND MOUNT 1 2 EA - SHIELD ASSEMBLY (30" X 51") 2 1 EA - D-3(2) SIGN (72" X12") - GROUND MOUNT
900000	1 EA	VIDEO INTERFACE EQUIPMENT
963010	1 EA	FOUR-CHANNEL LOOP DETECTOR AMPLIFIER-RACK MOUNT

EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY CONTRACTOR. ALL EQUIPMENT SHALL HAVE CATALOG CUTS SUBMITTED TO THE OFFICE OF TRAFFIC AND SAFETY FOR APPROVAL PRIOR TO INSTALLATION.

ITEM NO.	CATEGORY CODE NO.	QUANTITY	DESCRIPTION
1001	100000	3 EA	MAINTENANCE OF TRAFFIC
2002	203030	2 X CY	TEST PIT EXCAVATION
5001	500000	50 LF	5 IN. YELLOW HEAT APPLIED YELLOW THERMOPLASTIC PAVEMENT MARKINGS
5002	585462	300 LF	REMOVAL OF EXISTING PERMANENT PAVEMENT LINE MARKINGS - ANY WIDTH
5004	500000	150 LF	10 IN. WHITE HEAT APPLIED WHITE THERMOPLASTIC PAVEMENT MARKINGS
5005	585624	80 LF	24 IN. WHITE HEAT APPLIED WHITE THERMOPLASTIC PAVEMENT MARKINGS
8001	800000	20 X EA	12 INCH LED SIGNAL HEAD SECTION
8004	800000	3 EA	8 INCH LED SIGNAL HEAD SECTION
8007	800000	1 EA	ANY SIZE LIGHTING ARM ON SIGNAL POLE
8016	800000	1 EA	MAST ARM POLE & 38 FT. MAST ARM
8018	800000	1 EA	MAST ARM POLE & 70 FT. MAST ARM
8019	800000	1 EA	MAST ARM POLE & 50 FT. MAST ARM
8020	800000	2 EA	MICRO-LOOP PROBE (ANY LENGTH)
8027	800000	3 X EA	VIDEO DETECTION CAMERA AND CABLE
8028	800000	60 X LF	1 IN DETECTOR SLEEVE, FLEXIBLE LIQUID-TIGHT CONDUIT
8036	800000	1000 LF	SCHEDULE 80 RIGID PVC CONDUIT UP TO 4 IN - TRENCHED
8037	800000	280 LF	SCHEDULE 80 RIGID PVC CONDUIT UP TO 4 IN - BORED
8038	800000	195 X LF	WOOD SIGN SUPPORTS 4 IN. X 6 IN.
8040	800000	105 X X SF	INSTALL OVERHEAD OR GROUND MOUNTED SIGN
8042	802501	220 X X LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8044	807202	1 EA	METERED SERVICE PEDESTAL EMBEDDED
8046	810010	70 LF	ELECTRICAL CABLE 1 - CONDUCTOR NO. 4 AWG - THHN / THWN
8048	811001	9 X EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8054	861104	340 LF	ELECTRICAL CABLE 2 - CONDUCTOR (ALUMINUM-SHEILED)
8057	861107	100 X LF	ELECTRICAL CABLE 5 - CONDUCTOR (NO. 14 AWG)
8058	961108	720 X X LF	ELECTRICAL CABLE 7 - CONDUCTOR (NO. 14 AWG)
8059	861116	210 X X LF	ELECTRICAL CABLE 2 - CONDUCTOR (NO. 12 AWG) - TRAY CABLE
8060	862101	660 LF	LOOP WIRE ENGAGED IN FLEXIBLE TUBING (NO. 14 AWG)
8061	862102	290 X LF	SAW CUT FOR SIGNAL (LOOP DETECTOR)
8065	871202	1 EA	INSTALL CONTROLLER AND CABINET - BASE MOUNT
8022	800000	1 EA	REMOVE AND DISPOSE OF EXISTING EQUIPMENT
5003	585464	1 EA	REMOVE EXISTING PAVEMENT MARKING ARROW
8066	800000	425 SF	SAND COLORED HEAT APPLIED PERMANENT PREFORMED PAVEMENT MARKING
6003	655104	60 SF	4 IN. CONCRETE SIDEWALK

EQUIPMENT LIST "C"

C. EXISTING EQUIPMENT TO BE REMOVED BY THE CONTRACTOR AND DELIVERED TO THE STATE HIGHWAY ADMINISTRATION, 7491 CONNELLEY DRIVE, HANOVER, MARYLAND 21076. THE CONTRACTOR SHALL NOTIFY THE SHA AT (410) 787-7652 AT LEAST THREE DAYS IN ADVANCE OF DELIVERY.

ITEM NO.	QUANTITY	DESCRIPTION
NONE		

ALL SIGNAL EQUIPMENT TO BE REMOVED AND NOT RETURNED TO THE SHA SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

CONTACT PERSONS FOR DISTRICT 7 ARE AS FOLLOWS:

MR. JOHN CONCANNON
ASSISTANT DISTRICT ENGINEER - TRAFFIC
(301) 624-8141

MR. RAY JOHNSON
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
(301) 624-8105

MS. ANDREA ABEND
ASSISTANT DISTRICT ENGINEER - UTILITIES
(301) 624-8110

CONTACT PERSONS FOR OFFICE OF TRAFFIC AND SAFETY

MR. RICHARD DAFF, SR.
CHIEF, TRAFFIC OPERATIONS
(410) 787-7630

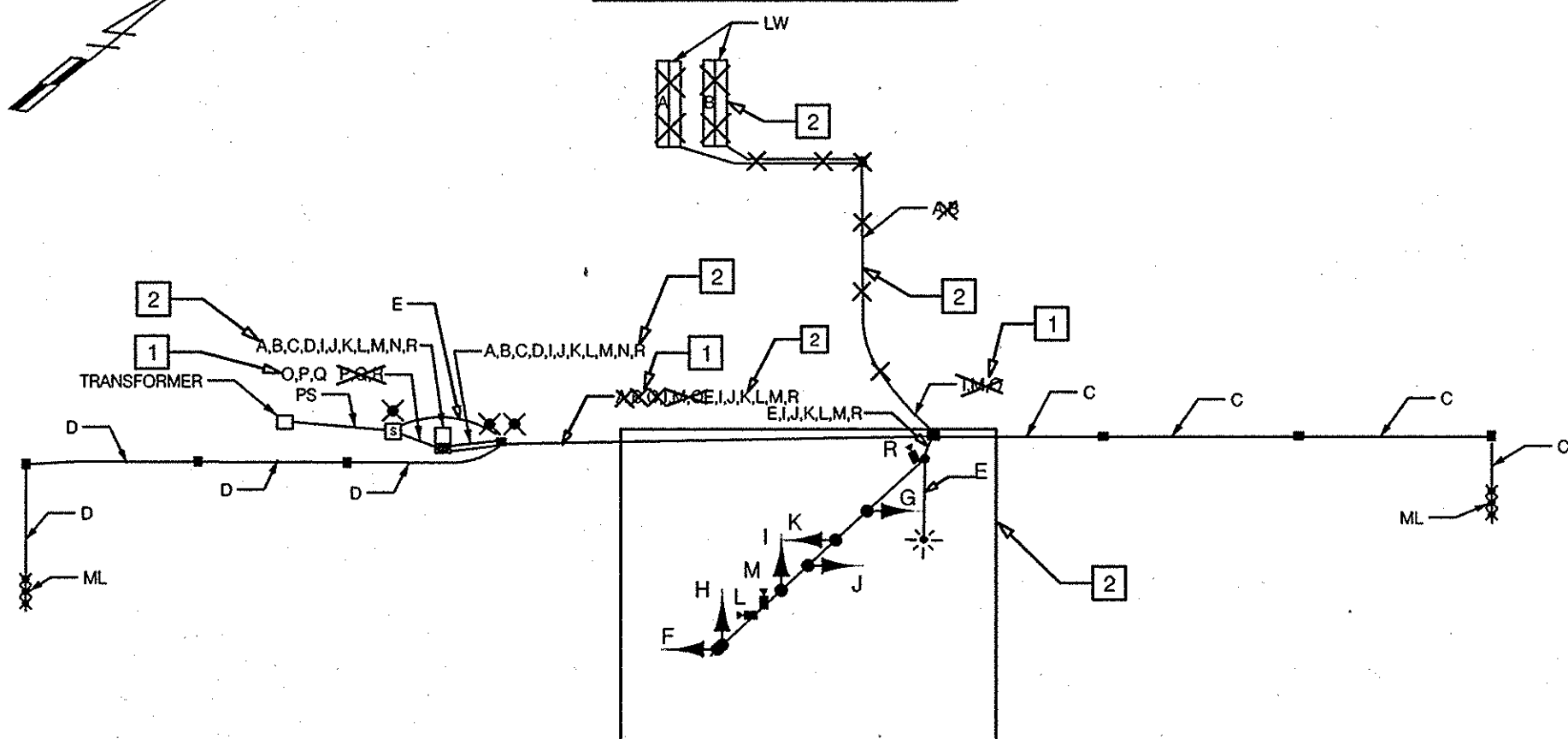
MR. EUGENE BAILEY
TEAM LEADER SIGN OPERATIONS
(410) 787-7676

MR. ROBERT SNYDER
ASSISTANT DIVISION CHIEF,
TRAFFIC OPERATIONS
(410) 787-7631

MS. DARLENE EIDE
SUPPLY OFFICE
SIGNAL SHOP WAREHOUSE
(410) 787-7668

MR. ED RODENHIZER
TEAM LEADER SIGNAL OPERATIONS
(410) 787-7652

WIRING DIAGRAM



WIRING KEY

2	AB	2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.) ALUMINUM-SHEILED
	C,D	MICRO-LOOP PROBE LEAD-IN
	E	2-CONDUCTOR ELECTRICAL CABLE (NO. 12 A.W.G.) TRAY CABLE
	F,G,H	5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
1	I,J,K,X	7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
1	L,M	VIDEO DETECTION CABLE
1	N	STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
1	O,P,Q	1-CONDUCTOR ELECTRICAL CABLE (NO. 4 A.W.G.)
	LW	LOOP WIRE (NO. 14 A.W.G.)
	ML	NON-INVASIVE MICRO-LOOP PROBE
	PS	PROPOSED ELECTRIC SERVICE
	R	GROUND ROD
2		VIDEO DETECTION CABLE

PHASING CHART

	1	2	3	4	5	6
PHASE 2 & 6	G	G	G	G	R	R
2 & 6 CHANGE	Y	Y	Y	Y	R	R
PHASE 1 & 6	G	G	R	R	R	R
1 & 6 CHANGE	Y	Y	R	R	R	R
PHASE 4	R	R	R	R	G	G
4 CHANGE	R	R	R	R	Y	Y
FLASHING OPERATION	FLY	FLY	FLY	FLY	FLR	FLR

2 REVISION 8-27-07
CHANGE POLE LOCATION
FROM WEST TO EAST CORNER
TEDD APPROVAL *[Signature]*

1 REVISION 8-1-07
CHANGE FROM BOX TO
DIAGONAL SIGNAL LAYOUT
TEDD APPROVAL *[Signature]*

TRAFFIC **C**ONCEPTS INC.
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SHA STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION
GENERAL INFORMATION PLAN
MD 99 (OLD FREDRICK ROAD)
AND WOODFORD ROAD

SCALE NONE DATE 8-2-07 CONTRACT NO. AX1425185

DESIGNED BY T. ZAYDEL COUNTY HOWARD
DRAWN BY T. ZAYDEL LOGMILE
CHECKED BY K. SCHMID T.I.M.S. NO. 1 010
F.A.P. NO. NA TOD NO.

DRAWING NO. TS- 4559 GI SHEET NO. 2 OF 2